

Appl. No. 10/539,662
Amdt. Dated September 13, 2007
Reply to Office Action of June 18, 2007

Attorney Docket No. 83363.0012
Customer No.: 26021

REMARKS

This application has been carefully reviewed in light of the Office Action dated June 18, 2007. Claims 1-8 remain in this application. Claims 1 and 8 are the independent Claims. Claims 1 and 8 have been amended. It is believed that no new matter is involved in the amendments or arguments presented herein. Reconsideration and entrance of the amendment in the application are respectfully requested.

Art-Based Rejections

Claims 1-4 and 8 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,013,084 (Ken) in view of U.S. Patent No. 6,468,266 (Bashiri); Claim 5 was rejected as obvious over Ken in view of Bashiri and U.S. Patent Publication No. 2004/0034363 (Wilson); Claims 6 and 7 were rejected as obvious over Ken in view of Bashiri, Wilson and U.S. Patent Publication No. 2004/0002732 (Teoh).

Applicant respectfully traverses the rejections and submits that the claims herein are patentable in light of the clarifying amendments above and the arguments below.

The Ken Reference

Ken is directed to a vaso-occlusive coil 102 and stretch-resisting member 108. A hook 199 is fixed to coil 191 (*See Ken; FIG. 10*).

The Bashiri Reference

Bashiri is directed to an assembly for placing an implant in the human body by electrically isolating the implant 114 from a core wire 110 and electrolytically

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severable joint 112. A hook 138 is fixed to implant 120 (*See Bashiri; Abstract and FIG. 3*).

The Wilson Reference

Wilson is directed to a vaso-occlusive coil 10 reinforced with a stretch resistant member 18 to improve safety during retraction of the coil. A loop 34 is attached to the coil 12 (*See Wilson; Abstract, FIG. 4 and Paragraph [0030]*).

The Teoh Reference

Teoh is directed to a stretch-resisting member 108 containing links that may be in a twisting form. A closed loop 176 is directly connected to a plurality of twisted links. Ball 182 is directly attached to one of the twisted links by a sealed junction 180 (*See Teoh; FIG. 2C, 2D and Paragraphs [0055]-[0056]*).

The Claims are Patentable Over the Cited References

The present application is generally directed to an indwelling implant for embolization.

As defined by amended independent Claim 1, an indwelling implant for embolization includes a coil composed of a metal and a substantially semi-spherical rounded head portion at the distal end of the coil. A single closed loop is provided inside the coil from the head portion toward the proximal end portion of the coil. An axial extension controlling member composed of at least one wire material which is thinner than the metal wire material forming the loop is provided inside the coil by extending the member in the coil axial direction of the coil and fixing both ends thereof directly or indirectly to the proximal end portion after the member passed

through the loop. The single closed loop is directly fixed to the rounded head portion and directly coupled to the axial extension controlling member.

The applied references do not disclose or suggest the features of the present invention as defined by amended independent Claim 1. In particular, the applied references do not disclose or suggest, "the single closed loop is directly fixed to the rounded head portion and directly coupled to the axial controlling member," as required by amended independent Claim 1.

Ken discloses a hook 199 that is directly fixed to coil 191 and not to a head portion (*See Ken; FIG. 10*). Hook 199 does not form a closed loop, but is just a hook. In Ken, the coil 191 is the subject to be controlled by an axial extension controlling system. However, a coil different from coil 191 is provided between coil 191 and the hook 199 to control the axial extension. Bashiri teaches the same structure.

Bashiri discloses a hook 138 that is directly fixed to implant 120 (*See Bashiri; Abstract and FIG. 3*). Hook 138 is fixed to the implant 120 so as to control the extension through an interior anchor coil 136. Similar to Ken, hook 138 does not form a closed loop.

In contrast, the present invention requires the single closed loop to be directly fixed to the rounded head portion and directly coupled to the axial extension controlling member. In this manner, an axial extension controlling member can be inserted and pulled through the loop to thereby fix the axial extension controlling member to the metal coil. As a result, the present invention can prevent the annealing-induced decrease in strength of the welded portion that occurs when the axial extension controlling member is directly welded to the distal end portion of the metal coil. Thus, sufficient strength is provided to the stretching preventing mechanism (*See Specification; Page 17, lines 14-27*). Furthermore, the components provided to control the extension of the coil in the indwelling implant,

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such as the head 12, loop 14 and axial extension controlling member 20 are directly connected to the coil 11 so as to control extension without any other coil. Accordingly, a large extension in an axial direction of the indwelling implant for embolization can be prevented without excess parts.

The ancillary references do not remedy the deficiencies of Ken. In particular, Wilson teaches a loop 34 which is directly attached to the coil 12 and not to distal end 14 (*See Wilson; Abstract, FIG. 4 and Paragraph [0030]*). Teoh is directed to a stretch-resisting member 108 containing links that may be in a twisting form. A closed loop 176 is directly connected to a plurality of twisted links. Ball 182 is directly attached to one of the twisted links by sealed junction 180 (*See Teoh; FIG. 2C, 2D and Paragraphs [0055]-[0056]*). A closed loop 176 that is directly fixed to ball 182 is clearly not disclosed.

Since the applied references fail to disclose, teach or suggest the above features recited in amended independent Claim 1, those references cannot be said to anticipate nor render obvious the invention which is the subject matter of that claim.

Accordingly, amended independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

Applicant respectfully submits that amended independent Claim 8 is allowable for at least the same reasons as those discussed with respect to amended independent Claim 1.

The remaining claims depend either directly or indirectly from amended independent Claims 1 and 8 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance.

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Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4721 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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